

Request 3-22

Request:

All: Please supply a copy of your policy of discarding old poles that have been removed from service. If you consider the old pole an environmental hazard requiring specific disposal techniques, please indicate whether your company has, does, or will, cut an old pole (T or D) at the ground line to facilitate economic removal of the pole.

Response:

Please refer to Attachments 3-22a and 3-22b.

National Grid USA Companies Environmental Procedure No. 11	Rev. No.:	3
	Page No.:	i
WOOD POLE MANAGEMENT	Date:	5/12/04

FOREWORD

The National Grid USA Environmental Procedure (EP) No. 11, Wood Pole Management, describes the process that is to be followed by Company environmental personnel prior to siting long term treated utility pole, cross arm or other treated wood storage areas. This EP replaces the RBU Environmental Policy No. 1, Utility Pole Storage. This EP also describes the Company's programs for inspection and treatment of wood poles.

Questions or inquiries regarding information provided in this EP should be referred to the National Grid USA Environmental Department - Manager Licensing & Permitting

Approved by Joseph M. Kwasnik
Vice President Environmental

Record of Change

Date of Review/Revision:

Revision	Date	Description
0	06/21/1995	Initial Issuance
1	05/24/2001	Editorial revisions.
2	1/06/03	Incorporate NY requirements
3	5/12/04	Change in Wood Pole Donation Policy



National Grid

National Grid USA Companies Environmental Procedure No. 11	Rev. No.:	3
	Page No.:	1
WOOD POLE MANAGEMENT	Date:	5/12/04

1.0 INTRODUCTION

National Grid USA maintains electric power Transmission and Distribution (T&D) line rights-of-way (ROWs) in Massachusetts, Rhode Island, New Hampshire, New York and Vermont. Many T&D lines are supported by wooden poles. Company personnel do not routinely conduct inspections and treatment of wooden poles, but are involved in the repair, replacement and the storage and management of new poles.

Poles and other wood products utilized by Company operations may be treated with creosote, pentachlorophenol, copper naphthenate, or CCA (chromated copper arsenate). These chemicals may leach out in small quantities over time. As it is the policy of National Grid USA and its subsidiaries to minimize environmental impacts from our activities, "long term" treated utility pole, cross arm or other treated wood storage areas shall be evaluated to determine whether sensitive receptors could be impacted by storm water runoff that has contacted chemically treated wood products. This EP also describes the company's programs for inspection and treatment of wood poles.

2.0 APPLICABILITY

This procedure applies to T&D permanent and long term treated utility pole and/or treated wood product storage areas. "Long term" is considered storage over one year. This procedure is not intended to regulate the storage of poles temporarily located in remote areas for specific projects. This procedure also describes inspection, treatment and disposal of treated wood waste.

3.0 WOOD POLE STORAGE

In general, long term treated wood storage areas shall not be located as follows:

- Within 100 feet of the high water mark of a surface water, source of public drinking water supply or tributary thereto;
- In wetlands.

Exception: Poles may be stored in wetland buffer zones for a specific project when the storage has been described in a **Request for Determination, Notice of Intent** and/or an **Order of Conditions**, and approved, as applicable, by the local Conservation Commission or government agency with authority for work done in wetlands. Refer to EP No. 13, *Project Permitting Guide* for additional details.

3.1 Storage Area Evaluation

National Grid USA Companies Environmental Procedure No. 11	Rev. No.:	3
	Page No.:	2
WOOD POLE MANAGEMENT	Date:	5/12/04

Prior to siting a long term treated wood storage area, the applicable Company Environmental Engineer shall observe the proposed site and surrounding area and complete a *Treated Wood Storage Area Environmental Survey Form*, shown as Attachment A of this EP. Completion of the form involves identification of site setting and land use practices, topography, proximity to sensitive receptors, whether or not the storm water runoff from the area is likely to impact the sensitive receptors and if there is any existing evidence that sensitive receptors have been impacted.

Sensitive receptors include:

- Vegetable Gardens
- Grazing or Farm Land
- Surface Waters Including Wetlands, Lakes, Streams, Ponds, Storm Drains or Combined Sewer Overflows (CSOs)
- Public Water Supply Well or Well Field.

This form shall also be completed for storage areas already in existence, that were not previously evaluated or were evaluated but the evaluation was not documented.

3.1.1 Distribution Organization

Typically within the Distribution organization, pole storage areas will be located at operating centers where a Spill Prevention Control and Countermeasures (SPCC) Plan has already been developed. Therefore the Divisional Environmental Engineer will evaluate the pole storage area by using information contained in the facility SPCC Plan (See Sensitive Receptors Table if Applicable).

This table will include information such as:

- proximity to surface waters: including stormwater catch basins and/or (CSOs); rivers and streams; and wetlands;
- groundwater aquifer classification; and
- drinking water sources.

If the table has not been developed for a site and the information listed above is not available, the Divisional Environmental Engineer or designee will need to contact state and local regulatory agencies to obtain the sensitive receptor information. If the sensitive receptor information cannot be obtained, the Environmental Department staff will provide assistance in determining if construction mitigation measures are needed.

3.1.2 Transmission Organization

National Grid USA Companies Environmental Procedure No. 11	Rev. No.:	3
	Page No.:	3
WOOD POLE MANAGEMENT	Date:	5/12/04

Typically long-term pole storage areas within the Transmission organization will be at remote undeveloped areas and information may not be readily available. The Transmission Environmental Engineer will contact state and local regulatory agencies for sensitive receptor information. If the sensitive receptor information cannot be obtained, the Environmental staff will provide assistance in determining if construction mitigation measures are needed.

3.2 Mitigation of Storage Areas

If it is determined that sensitive receptors are likely to be impacted, some mitigation may be required. The Environmental Engineer shall evaluate whether any one of the following measures should be implemented or if another location should be used:

- Regrade and pave surface to direct storm water away from sensitive receptor.
- Cover poles to minimize storm water contact.
- Construct detainment area using the SPCC compacted geotextile/soil design. This design requires the construction of a 12-inch layer of well compacted, silty-sand and gravel mix sandwiched between top and bottom layers of 16-ounce polypropylene geotextile. The area is covered with a 2-inch layer of crushed stone.

The results of this review should be clearly documented on the *Treated Wood Storage Area Environmental Survey Form*.

3.3 Storage Area Record Retention

The completed *Treated Wood Storage Area Environmental Survey Form* should be retained by the applicable Environmental Engineer for the life of the pole storage area.

4.0 WOOD POLE INSPECTION and TREATMENT PROGRAMS

Services for the inspection and treatment of wooden poles are contracted out. The distribution organization's wood pole requirements are documented in the *Distribution Standard GS 2015, Field Inspection and Preservative Treatment of Wood Poles*. NY utilizes *Specification E-1091*.

The transmission organization's requirements for the inspection and treatment of wooden poles is contained in the Purchase Order (PO) document for the organization's contractor, Osmose. The PO references the contractor's *Specification for the External and Internal Groundline Inspection and Supplemental Treatment of Standing Utility Poles*, as well as Exhibit A, *Specifications for Inspection and Groundline Treatment* and Exhibit B, *Additional Information Regarding Contractor's Pole Inspection and Groundline Treatment Programs Relative to Best Practices*. Contractors must follow the requirements specified in applicable Purchase Order documents and/or Standards.

National Grid USA Companies Environmental Procedure No. 11	Rev. No.:	3
	Page No.:	4
WOOD POLE MANAGEMENT	Date:	5/12/04

5.0 REPAIR, REMOVAL, AND DISPOSAL ACTIONS

WARNING: OSHA regulations and National Grid USA policy and guidelines require personnel to wear approved PPE when working on wooden poles. See Sections 402 and 1105 of the National Grid USA Safety Manual.

5.1 Repair and Removal

Wooden pole repair and removal procedures are quite varied, depending on pole type, condition, location, and access (among other variables). Therefore, it is impractical to present detailed procedures applicable to every type of repair or removal process. However, certain general rules apply to all wooden pole work.

NOTE: Special precautions must be observed when working in or adjacent to wetland areas. Refer to EP No. 19, *Substation and ROW Access, Maintenance and Construction BMP* for work practice precautions.

- Only Qualified Persons may work within conductor security zones if the lines are energized.
- Observe all OSHA regulations and guidance regarding potential fall or drop hazards when working on elevated structures.
- If sawing, avoid breathing dust.
- Wear long-sleeved shirts and protective gloves to prevent skin contact with treated wood surfaces.
- Do not remove or destroy any active bird nests. Notify the appropriate National Grid USA contact listed in EP No. 16, *Migratory Birds* if you encounter bird nests in an area requiring pole repair or removal.
- Transfer all wastes to an approved facility for recycling or proper disposal as soon as practical after generation.
- The “pole butt” should be removed

5.2 Disposal

The management of treated wood waste and spent utility poles for disposal or donation is covered in EP No. 1, *Waste Management and Recycling* and EG177. As discussed in these documents, spent poles may only be donated if allowed by the VP of Business Services. Additionally, National Grid employees may not take discarded poles for their own use. When the treated wood waste is being disposed, it must be disposed at National Grid USA-

National Grid USA Companies Environmental Procedure No. 11	Rev. No.:	3
	Page No.:	5
WOOD POLE MANAGEMENT	Date:	5/12/04

approved recycling and disposal vendors. Refer to the SCM Infonet web site for the list of approved hazardous waste and scrap metal vendors.

National Grid USA Companies Environmental Procedure No. 11	Rev. No.:	3
	Page No.:	6
WOOD POLE MANAGEMENT	Date:	5/12/04

**Attachment A
Treated Wood Storage Area Environmental Survey Form**

Pole Yard Location:

Date:

Completed by:

Site Setting: (circle one) Rural Residential Residential/Commercial
Commercial/Industrial

Current Uses of Adjoining Properties:

Topographic Observations:

Soil Type:

Direction of Slope:

Flat:

Natural Barriers:

Sensitive Receptor Information/Proximity to Pole Yard:

Surface Waters: yes ____ no ____

Type(s):

Grazing or Farmland: yes ____ no ____

Vegetable Garden: yes ____ no ____

Source of Drinking Water:

Visual Evidence of Impact:

Stained Soil/Extent:

Stressed Vegetation:

Additional Notes:

National Grid USA Companies Environmental Procedure No. 1 Waste Management and Recycling Chapter 10	Rev No.: 10
	Page No. 1 OF 30
WASTE MINIMIZATION AND RECYCLING	Date: 11/23/04

10.0 WASTE MINIMIZATION AND RECYCLING

This chapter provides information on waste minimization/recycling regulations and provides an overview of current National Grid USA companies' waste minimization and recycling programs. Waste minimization and recycling are practices which reduce or eliminate the creation of waste at the source and prevent its release into the environment. Both practices are emphasized in state and federal hazardous waste programs. National Grid USA subsidiaries promote a policy to "Reduce, Reuse, and Recycle" all hazardous wastes, materials and by-products, as appropriate.

10.1 Overview of Waste Minimization and Recycling Regulations

The following information summarizes pertinent regulations governing waste minimization and recycling:

10.1.1 Waste Minimization National Plan

The Waste Minimization National Plan is a long-term national effort to reduce the quantity and toxicity of hazardous waste. The goals of the national plan are to:

- Reduce by 50% the most persistent, bioaccumulative and toxic (PBT) chemicals in the nation by the year 2005;
- Emphasize source reduction and environmentally sound recycling over waste treatment and disposal; and,
- Prevent transfers of chemical releases from one medium (air, water, land) to another.

10.1.2 Pollution Prevention Act

The Federal Pollution Prevention Act of 1990 (PPA) sets pollution prevention as a national objective. The PPA required EPA to implement a strategy to promote source reduction. In the PPA, the Congress stated that pollution prevention is the highest goal, and that if pollution cannot be prevented or reduced at the source, then the it should be recycled; if it is not feasible to prevent or recycle, then pollution should be treated, and only disposed of as a last resort.

10.1.3 Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA), was designed to provide "cradle-to-grave" controls on wastes by imposing management requirements on

National Grid USA Companies Environmental Procedure No. 1 Waste Management and Recycling Chapter 10	Rev No.: 10
	Page No. 2 OF 30
WASTE MINIMIZATION AND RECYCLING	Date: 11/23/04

generators, transporters, and treatment, storage and disposal facilities. Subtitle A of RCRA states that as a matter of national policy, the generation of hazardous waste is to be reduced or eliminated as expeditiously as possible and that land disposal should be the least favored method for managing hazardous wastes.

Generators of hazardous waste must comply with the set of standards in Section 3002 of RCRA. Section 3002(b) of RCRA states that the generator of the hazardous waste must certify on the hazardous waste manifests that:

1. The generator has a waste minimization program in place to reduce the volume or quantity and toxicity of hazardous waste generated to the degree determined by the generator to be economically practicable; and,
2. The proposed method of treatment, storage, or disposal is the practicable method currently available to the generator which minimizes the present and future threat to human health and the environment.

10.1.4 Universal Waste Rule

On May 11, 1995, the EPA finalized the Federal Universal Waste Rule. The purpose of the rule is to streamline regulatory requirements for certain widely generated hazardous wastes. It was designed to encourage recycling and to reduce the amount of hazardous waste from entering municipal solid waste facilities. Refer to Chapter 9 for additional information on the EPA's Universal Waste Rule.

10.1.5 Rhode Island OSCAR Program

Under Rhode Island's Ocean State Cleanup and Recycling (OSCAR) Program, source reduction and recycling are set as the top priorities for Rhode Island's solid waste management.

This Rhode Island state law requires that businesses recycle numerous solid wastes, including:

- Corrugated cardboard
- Office paper
- Newspaper
- Wood waste
- Used lubricating oil
- Vehicle batteries

National Grid USA Companies Environmental Procedure No. 1 Waste Management and Recycling Chapter 10	Rev No.: 10
WASTE MINIMIZATION AND RECYCLING	Page No. 3 OF 30 Date: 11/23/04

Rhode Island's Rules and Regulations for Reduction and Recycling of Commercial and Non-Municipal Residential Solid Waste requires businesses with 50 or more employees to segregate and recycle solid wastes. The Rhode Island Resource Recovery Corporation (RIRRC) assumed responsibility for administering statewide recycling in 2001, when the Ocean State Cleanup and Recycling Program (OSCAR) was suspended. Annual reporting requirements to RI DEM have also been permanently suspended; however, the inventory and tracking of recycled materials is still recommended. Table 11.3 provides a summary of Rhode Island's solid waste regulations.

10.1.6 Vermont Hazardous Waste Reduction Plans

Under Vermont regulations Title 10 VSA Chapter 159 and Act 100, facilities are required to prepare Hazardous Waste Reduction (HWR) Plans and HWR Plan Summaries. This program has been implemented as the state version of EPCRA. The goals of this program include:

- The elimination or reduction of the use of hazardous, toxic, materials;
- A reduction in the generation of hazardous waste;
- A reduction in the number of releases of contaminants that have adverse or serious health effects into the environment;
- Documented efforts towards hazardous waste and toxic use reduction, and the availability of this information to the public, as well as state and local government;
- Plans must be revised every 3 years; only the Plan Summaries are submitted to the Vermont Department of Environmental Conservation. Updated Plans and Plan summaries are due on or before July 1 of every third year. As a part of each Plan, the generator must establish specific performance goals for the reduction of toxins and hazardous waste for specific categories. The Plan Summaries must include a written statement articulating upper managements corporate policy with respect to a toxic use reduction and hazardous waste reduction plan, and a commitment to implement the plan goals.

10.2 National Grid USA Waste Minimization and Recycling Programs

National Grid USA Companies Environmental Procedure No. 1 Waste Management and Recycling Chapter 10	Rev No.: 10
	Page No. 4 OF 30
WASTE MINIMIZATION AND RECYCLING	Date: 11/23/04

The following information summarizes current National Grid USA subsidiaries' waste minimization and recycling programs. The Company strives to **reduce** the quantities of hazardous waste generated by reducing or eliminating as many hazardous chemicals as possible in the work place, by consolidating the chemicals used, by **reusing** materials as much as possible, and by **recycling** increasing quantities of wastes. The following sections provide summaries of National Grid's current waste minimization and recycling programs.

10.2.1 Waste Minimization Program

National Grid's Waste Minimization Program supports the national plan for reducing the volume and toxicity of all waste generated. National Grid's efforts in this arena include reduction of solid waste through maximum reuse and recycling of materials and changing work practices to reduce or eliminate generation of hazardous waste. These waste minimization efforts allow National Grid USA to simultaneously improve environmental results and reduce costs.

A variety of initiatives instituted at National Grid USA as a result of waste minimization assessments include:

- The replacement of chlorinated based cleaners with non-chlorinated;
- Recycling of used oil filters and oily rags;
- Recycling of lighting waste;
- Recycling of corrugated board;
- Recycling of rechargeable batteries;
- Increasing the amount of oily soil recycled via asphalt batching;
- Applying in-situ remediation technologies to contaminated sites, when feasible and appropriate;
- Evaluating a plan to eliminate lead cable in new underground installations; and,
- Burning of waste automotive oil for energy recovery.

National Grid USA Companies Environmental Procedure No. 1 Waste Management and Recycling Chapter 10	Rev No.: 10
	Page No. 5 OF 30
WASTE MINIMIZATION AND RECYCLING	Date: 11/23/04

Refer to Attachment A for a copy of the National Grid USA COMPANIES Waste Minimization Program.

10.2.2 Battery Recycling Program

The Universal Waste Rule addresses most waste batteries. Refer to Chapter 9, Universal Waste and Lighting Waste, for a complete description of the National Grid USA battery management program.

10.2.3 Empty Drum and Can Recycling Program

EPA's definition of an RCRA empty container is slightly different from the DOT definition. Under the EPA definition, a container is empty if all wastes have been removed that can be removed using the practices commonly employed to remove materials from that type of container; *e.g.*, pouring, pumping, and aspirating; *and* there is no more than 2.5 centimeters (one inch) of residue remaining on the bottom of the container or inner liner. A container that has held a hazardous material or hazardous waste that is a compressed gas is empty when the pressure in the container is substantially at atmospheric pressure. Refer to 40 CFR 261.7 and state-specific regulations for additional requirements for managing empty containers of acutely hazardous wastes.

Under DOT rules, a package/container is considered "empty" when it has been cleaned of residue and purged of vapors to remove any potential hazard (49 CFR 173.29). Residues removed from containers of hazardous wastes and hazardous materials must be collected and managed as hazardous wastes as appropriate. Under no circumstances should residues be allowed to escape from a container, dumped on the ground or otherwise introduced into the environment.

- **Empty Drums:** Empty drums once used to store hazardous materials or wastes, shall be disposed of at a National Grid USA Subsidiaries Approved Hazardous Waste Disposal and Recycling Facility listed on the Infonet.

Empty drums once used to store hazardous materials or wastes, shall not be disposed of in the trash or at a scrap dealer. Whenever possible, these empty drums and containers should be returned to the manufacturer.

Empty drums which were not used to store hazardous materials or wastes should be recycled for scrap metal when possible and as a last choice, disposed of as a solid waste. In all cases, labels should be removed from the drums (or painted over with opaque black paint) prior to disposal.

National Grid USA Companies Environmental Procedure No. 1 Waste Management and Recycling Chapter 10	Rev No.: 10
	Page No. 6 OF 30
WASTE MINIMIZATION AND RECYCLING	Date: 11/23/04

- **Cans:** In order to minimize the generation of hazardous wastes, the full contents of a container of hazardous materials, such as paint cans and aerosol cans, should be used. Whenever possible, consolidate similar product items from several containers into a single container.

Shipping closed containers within a drum is considered a lab pack. **Do not** place closed containers within a drum and ship the wastes under an existing waste profile.

When empty, these containers may be recycled for scrap metal, or discarded as solid waste. Empty aerosol cans should not be recycled as scrap metal unless the cans have been depressurized and the residues have been collected and appropriately managed.

10.2.4 Fluorescent Lamp and Lighting Waste Recycling Program

The Universal Waste Rule addresses most lighting wastes such as HID and fluorescent lamps, intact fluorescent light ballasts (PCB and non-PCB) and intact capacitors (PCB and non-PCB). Refer to Chapter 9, Universal Waste and Lighting Waste, for a complete description of the National Grid USA lighting waste management program.

10.2.5 Oil Contaminated Soil Recycling

Soil contaminated with oils, including MODF, may be recycled at a National Grid-approved asphalt batch facility, if the waste meets the criteria outlined in the facility's permit. These facilities cannot accept soils with concentrations of PCBs greater than or equal to 2, nor can they accept soils that contain listed or characteristic RCRA wastes over certain concentrations.

Asphalt batching is the preferred method of disposal/recycling of contaminated soil and is usually cost effective in volumes greater than 10 cubic yards.

The Infonet provides a listing of National Grid USA-approved soil recycling facilities including location, permit number and mix type. Table 10.1 provides the requirements for soil sampling/analysis for soils being sent to soil-recycling facilities. Please note that oil-contaminated soils may only be sent to approved facilities listed on the Infonet.

National Grid USA Companies Environmental Procedure No. 1 Waste Management and Recycling Chapter 10	Rev No.: 10
	Page No. 7 OF 30
WASTE MINIMIZATION AND RECYCLING	Date: 11/23/04

All generators sending oil-contaminated soil to an asphalt batch facility in Massachusetts from in or out-of-state must complete specific forms required by the Massachusetts DEP under the MCP. Other states may have similar requirements. Refer to Chapter 8 for additional information on the Management of Remediation Waste.

10.2.6 Oil Filter Recycling

National Grid USA recycles oil filters. The recycling facilities accept crushed or non-crushed oil filters (uncrushed filters are preferred). The following criteria apply to recycling oil filters:

- Gasoline filters are not accepted for recycling.
- Oil filters destined for recycling are not hazardous wastes and can not be stored in the hazardous waste storage areas. The oil filter recycling drums should be labeled with the contents and the words "recyclable material."
- Oil filters should be shipped using a Bill of Lading.

Massachusetts Only

- In order for the filters to be considered empty and therefore able to be managed as a recyclable material, the oil filters must be either:
 - Drained & crushed to a point where no free flowing oil remains in the crushed filter, or
 - The anti drain-back valve or dome end of the filter must be punctured and the filter "hot-drained" for at least 12 hours.

Refer to the Infonet for the current list of National Grid-approved recycling vendors.

10.2.7 Oily Rag Recycling

Non-saturated oily rags may be handled as non-hazardous waste when the following conditions are met:

- Rags must not have any quantity of oil such that if the rag is twisted oil will flow or drip from the rag;

National Grid USA Companies Environmental Procedure No. 1 Waste Management and Recycling Chapter 10	Rev No.: 10
	Page No. 8 OF 30
WASTE MINIMIZATION AND RECYCLING	Date: 11/23/04

- State regulations and guidance documents must be followed. See Table 10.2 for a summary of the requirements;
- Oils absorbed on the rags must not contain MODF or PCBs;
- The laundry facility, resource recovery facility, or recycling facility must hold all applicable permits;
- Rags which are non-hazardous should not be stored in a hazardous waste storage area and should not be labeled with any hazardous waste labels. Non-hazardous rags should be labeled with the contents to be in compliance with HazCom requirements.

Oily rags must be handled as hazardous wastes if they are **saturated** with oil, chlorinated solvents, or contain PCBs or MODF. In New York, oil saturated rags are a solid waste, and are not disposed as hazardous.

10.2.8 Treated Wood and Utility Pole Recycling

Treated wood waste and spent utility poles may contain hazardous constituents including creosote, pentachlorophenol, or chromium copper arsenate compounds. Treated wood waste and poles can be recycled for energy recovery or disposed of at approved disposal facilities at National Grid USA-approved facilities. Clean wood waste may be included in shipments to the energy recovery facility (e.g., used pallets and wooden crates or boxes). Painted wood is not an acceptable waste stream for recycling by energy recovery.

The treated wood wastes should be handled as non-hazardous solid wastes destined for recycling. At National Grid facilities, treated-wood wastes can be stored in open-topped containers, or in staging areas, preferably on a paved area at company facilities. However, due to the nature of the operations for transmission and cross-country distribution activities, treated-wood wastes may be temporarily stored on the ground surface. Projects in Transmission and Distribution may require that waste poles be stored on the ground in field locations for short periods of time prior to off-site shipment for disposal. Hazardous constituents are present in the treated wood, therefore it is good practice to maintain MSDS's on-site.

National Grid does not allow for the donation of spent poles to the public. However, the VP of Business Services can by exception allow a donation if the treated wood will not be used:

National Grid USA Companies Environmental Procedure No. 1 Waste Management and Recycling Chapter 10	Rev No.: 10
	Page No. 9 OF 30
WASTE MINIMIZATION AND RECYCLING	Date: 11/23/04

- Near human or animal food sources;
- Near surface waters or wetlands;
- Within enclosed structures;
- In areas frequently used by children.

If the poles are donated, the Environmental Engineer should provide the person/organization receiving the poles an MSDS for the constituents in the pole or other equivalent literature stating the prohibited uses. An example of a cover letter is provided as Figure 10.1. Pole chemical literature may be obtained from the Environmental Department.

10.2.9 Scrap Metals Recycling

The Institute of Scrap Recycling Industries, Inc. (ISRI) divides scrap metals into three types: Home Scrap, generated by steel mills and foundries; Industrial Scrap, generated by the metal working/fabrication industries; and Obsolete Scrap, composed of metal that has outlived its original intended use (such as an empty aerosol can). National Grid USA generates industrial and obsolete scrap metals, such as lead cable, steel structures, copper wire, aluminum wire and miscellaneous metal parts.

Scrap metals which contain no hazardous wastes are regulated as solid wastes. Metals should be recycled whenever possible through a National Grid USA approved scrap metal dealer. Refer to the Infonet for a list of approved facilities.

When recycling metals, consider the following:

- No transformers or other electrical equipment such as circuit breakers, regulators, etc., can be sent to scrap metal dealers. Electrical equipment must be recycled or disposed through an approved electrical equipment recycling vendor such as TCI. Refer to Chapter 13 for more information regarding electrical equipment management.
- Different types of metals such as steel, copper wire, and lead cable should be segregated for higher cost recovery.
- Materials should be reused when possible.
- All free liquids should be removed from scrap metal containers prior to stockpiling or placing into a dumpster.

National Grid USA Companies Environmental Procedure No. 1 Waste Management and Recycling Chapter 10	Rev No.: 10
	Page No. 10 OF 30
WASTE MINIMIZATION AND RECYCLING	Date: 11/23/04

10.2.10 Certificates of Recycling

When shipping oily soil, used oil filters, oily rags and batteries using a shipping paper that does not provide confirmation of receipt of the material by the receiving facility (ex: a hazardous waste manifest), a Certificate of Recycling should be obtained in order to assure that the material was properly managed. Often Certificates of Recycling are attached to invoices.

10.2.9 Personal Computers and Monitors

Personal Computers (PCs) and monitors (CRTs) no longer in service are sold to secondary vendors through the company's Investment Recovery Group. Personal computers (PCs) and monitors (CRTs) do not present either a physical or health hazard during normal use. In the unlikely rare circumstance of a broken CRT, hazardous waste could be generated due to lead and/or mercury. Please refer to chapter 7, section 7.12 of this EP for further guidance.

10.3 Waste Oil Recycling

This section describes the appropriate methods for managing used oils prior to burning or recycling, the registrations, permits and record keeping required by facilities which burn, recycle or market waste oils, and the off-site shipment requirements.

The regulations for storing, labeling, and recycling waste oils vary from state to state. However, when waste oils are destined for recycling, by being burned for energy recovery, blended into boiler fuel, or re-refined, they are subject to less stringent management standards than if the waste oils (used oil fuel) are not destined for recycling. Waste oils not destined for recycling must be managed as state-regulated hazardous waste. New York handles used oil as non-hazardous.

Generally, recycling permits are required when a Generator wishes to burn waste oils on-site and when shipping waste oils directly to a Burner, thus becoming a "Marketer" of waste oils.

Regulations concerning the management of waste oils differ for specification (spec) and off-specification (off-spec) used oils. In general, spec used oils may be burned at facilities with fewer regulatory burdens. Each state, however, defines spec used oil in a slightly different manner. The following sections define spec and off-spec used oils and detail the regulations in each state for both types of oils.

National Grid USA Companies Environmental Procedure No. 1 Waste Management and Recycling Chapter 10	Rev No.: 10
	Page No. 11 OF 30
WASTE MINIMIZATION AND RECYCLING	Date: 11/23/04

10.3.1 Recycling of Waste Oils at Murphy's Waste Oil Facility

Murphy's Waste Oil (Clean Harbors Environmental Services' facility), located in Woburn, Massachusetts, is a licensed TSDF and a National Grid USA approved vendor, and has received approval of the Massachusetts DEP to accept MA01 waste oil, MA97 specification oil and MA98 off-specification oil. Murphy's is also a licensed hazardous waste transporter, and is authorized to market spec and off-spec used oil fuel, and thus is a Marketer of used oil fuels. Shipments of waste oil utilizing the MA97 and MA98 waste codes are not subject to the Massachusetts hazardous waste transporter fee. Murphy's blends waste oils for marketing as a Boiler Fuel Supplement, which is burned for energy recovery, thus meeting the definition of recycling.

NOTE: MODF may not be sent to Murphy's for recycling. All MODF must be disposed at a National Grid-approved incinerator or thermal recovery facility. See the Infonet. In some cases, non-PCB MODF may qualify as MA98, off-specification used oil fuel, and may be manifested as an MA98 waste oil to a National Grid USA approved incinerator or thermal recovery facility.

Massachusetts spec oil parameters are described in Table 10.4. Each batch of spec oil must be analyzed to ensure it meets the criteria in Table 10.4. Used oil fuel which exceeds the allowable level of any constituent or property in Table 10.4, is not transformer oil, and has not been mixed with a hazardous waste (e.g., F001 halogenated solvent), is off-spec oil. Off-spec oil need only be analyzed to ensure it has not been mixed with hazardous waste. Therefore, generators of waste motor oils or other off-spec oils shipping to Murphy's, should utilize the waste code MA98, as the waste oil need only be screened for total halogens to confirm it is not a hazardous waste. This test is performed by the transporter (Murphy's) prior to acceptance of each load of off-spec oil. The results of the test are recorded on the manifest. Analytical results from a representative sample of off-spec oil are on file with the Environmental Engineer.

The generator does not have to obtain a recycling permit or notify State Regulatory Agencies of the shipment of waste oils to a Marketer. However, Massachusetts generators managing on-site generated waste oils as off-spec oil are subject to the hazardous waste regulations, until the time the oil is confirmed to be off-spec oil by the transporter by halogen screening. The results from the screen test must be recorded on the manifest or bill of lading log. State-specific information on Vermont, New Hampshire and Rhode Island is included in

National Grid USA Companies Environmental Procedure No. 1 Waste Management and Recycling Chapter 10	Rev No.: 10
	Page No. 12 OF 30
WASTE MINIMIZATION AND RECYCLING	Date: 11/23/04

subsequent sections of this Chapter. It is strongly recommended that National Grid USA subsidiaries' generators recycle their waste oils on-site or at an off-site Marketer/Blender facility in order to avoid the Massachusetts hazardous waste transporter fee. Other vendors may be able to accept waste oils for recycling utilizing the MA98 waste code. Vendors should be contacted to make site-specific arrangements for the recycling of waste oils. See the Infonet for a list of National Grid USA-approved disposal and recycling facilities.

10.3.2 Massachusetts

Waste oil recycling in Massachusetts is regulated by state-issued recycling permits as prescribed in 310 CMR 30.200. There are several different classes of recycling permits. A Class A Recycling Permit is applicable for recycling waste oil through burning on-site in a space heater for energy recovery. Currently this is the only type of waste oil recycling occurring on-site at National Grid USA facilities. Several National Grid USA garages maintain permits to burn waste oils (lubricating oils, hydraulic fluids, transmission fluids) to heat or supplement the heat in the garages. The permits do not allow the burning of MODF, with or without PCBs, or chlorinated solvents.

To obtain a recycling permit, an application must be submitted to the appropriate DEP regional office using a transmittal form with a unique transmittal number and the BWP HW21 Class A Recycling Presumptive Approval Permit form. The application fee is \$110.00. The forms, instructions and the transmittal number may be obtained from the DEP office or through their web site (www.state.ma.us/dep/dhm/hwforms.htm). If the DEP does not contact an applicant in writing within 21 days of the application submittal date, the permit is considered approved. A copy of the application form becomes the permit. Permits expire in five years from the date of issue.

Conditions of a recycling permit include, but are not limited to:

- Submission of an annual report by March 1 for the preceding calendar year.
- Maintenance of records demonstrating that no speculative accumulative of waste oil has occurred. The records must include: the amount of material being accumulated or stored at the beginning of each calendar year; records showing the amount of material received or generated during the calendar year; and records showing the amount of materials being accumulated or stored at the end of the calendar year.

National Grid USA Companies Environmental Procedure No. 1 Waste Management and Recycling Chapter 10	Rev No.: 10
	Page No. 13 OF 30
WASTE MINIMIZATION AND RECYCLING	Date: 11/23/04

- Marking/labeling of each waste oil tank or container with the following: The words "Regulated Recyclable Material"; the identity of the substance; the type of hazard associated with the materials; the date upon which each period of accumulation or storage begins (dating is not required for tanks or containers that are hard piped to space heaters).
- Providing training, classroom or on-the-job, for personnel who are involved in the recycling activities. The training topics must include the conditions of the permit and how to conduct activities to ensure protection of human health and the environment.

Other requirements of the permit, such as the requirement to prepare for emergencies, are covered by existing plans and procedures. Generators of recyclable waste oil are also subject to the requirements of hazardous waste generators as described in Chapters 3 and 4 of this manual. Refer to Table 10.4 for a summary of the requirements.

When shipping off-specification used oil fuel to a burner, the transporter must have a permit allowing them to act as a "Marketer". Otherwise, the oil must be shipped as a hazardous waste or the generator must obtain a Class B-3 recycling permit.

10.3.3 New Hampshire

Generators in New Hampshire that recycle used oils must comply with the regulations set forth in Part Env-Wm 807, Requirements for Management of Used Oil Being Recycled, of the New Hampshire Hazardous Waste Rules. Standards for generators of used oil being recycled are found at Env-Wm 807.06. Table 10.5 summarizes generator, burner and other requirements applicable to used oils being recycled.

As outlined in Table 10.4, direct shipment of used oil to a burner qualifies the generator as a "Marketer". Standards which the Marketer must follow are outlined in Table 10.4 and include:

- Analysis of each load of oil for parameters listed in the regulations (tables 8.1 and 8.2)
- Assignment of a unique ID# to each batch of oil

National Grid USA Companies Environmental Procedure No. 1 Waste Management and Recycling Chapter 10	Rev No.: 10
	Page No. 14 OF 30
WASTE MINIMIZATION AND RECYCLING	Date: 11/23/04

10.3.4 Rhode Island

Generators in Rhode Island which burn used oils are subject to Rhode Island Air Pollution Control Regulation 20 and the requirements of 40 CFR 266, Subpart E, where more stringent. Table 10.6 summarizes the applicable requirements for recycling used oils in Rhode Island.

Rhode Island has a Policy (1991) on the management of waste oils, although DEM personnel do not appear to interpret the Policy consistently. However, if the generator, through repeated analysis, can show that the waste oil does not meet the criteria to be determined hazardous, the generator may manage the waste oil as a non-hazardous waste. The generator should ship the waste utilizing a regular BOL and must maintain analytical data and shipping papers. Additionally, oil that is being managed as a non-hazardous waste, must not be stored in the generator's hazardous waste area. Also, the waste oil must not be shipped on a RI hazardous waste manifest form. If the waste oil is shipped out of state and a manifest is required by the destination state, copies must not be sent to RIDEM.

As outlined in Table 10.5, direct shipment of Used Oil to a burner qualifies the generator as a "Marketer". Marketer Standards which must be followed are also listed in Table 10.5

10.3.5 Vermont

Generators in Vermont that burn oils in space heaters on site must comply with the requirements of Section 7-610 of the Vermont Hazardous Waste Management Regulations and all applicable provisions of the Vermont Air Pollution Control Regulations. Table 10.7 summarizes the requirements applicable to used oil recycling.

Generators that recycle waste crank case and motor vehicle oils are exempt from managing these oils as a hazardous waste as long as the oils do not exhibit a hazardous waste characteristic, and are stored in a manner such that no disposal occurs and are transported by a licensed hazardous waste transporter to a facility, such that the waste oil is ultimately burned for energy recovery [VT 7-203(14)(b)] However, it is National Grid USA Policy that containers and tanks storing waste oils are managed in accordance with the Generator requirements specified in Chapter 3.

National Grid USA Companies Environmental Procedure No. 1 Waste Management and Recycling Chapter 10	Rev No.: 10
	Page No. 15 OF 30
WASTE MINIMIZATION AND RECYCLING	Date: 11/23/04

As outlined in Table 10.7, direct shipment of Used Oil to a burner qualifies the generator as a "Marketer". Marketer Standards which must be followed are also listed in Table 10.7

10.3.6 New York

In New York, used oil is managed according to 6 NYCRR Part 360 (Solid Waste Management Facilities), Subpart 360-14 Used Oil. On specification, Used Oil is handled as a solid waste. All tanks storing used oil must be registered under the Bulk Petroleum Storage Regulations (6 NYCRR 612) whether or not the minimum threshold volume of 1,100 gallons on site storage is met.

Used oil burned for energy recovery is also subject to Subpart 374-2 and Part 225 of 6 NYCRR.

Table 10.8 summarizes the requirements applicable to used oil recycling.

National Grid USA Companies Environmental Procedure No. 1 Waste Management and Recycling Chapter 10	Rev No.: 10
	Page No. 16 OF 30
WASTE MINIMIZATION AND RECYCLING	Date: 11/23/04

Figure 10.1: Cover Letter Example

Date

Requestor

Title/Position (if appropriate)

Address

Re: Donation of Used Utility Poles

Dear (Requestor):

In response to your request, the (subsidiary name) will provide you with used utility poles to be recycled as stated in your letter dated (insert date). It is agreed that these poles will not be used near food sources or water.

You agree that (the requestor) will assume full responsibility for any waste generated by the use of these poles, and will dispose of it in full compliance with all applicable requirements. The (requestor) further agrees to hold (subsidiary name) harmless for any negligence in the (requestor's) handling of the poles.

As these poles have been pressure treated with wood preservative such as creosote, pentachlorophenol, or chromium copper arsenate, we are obliged to provide information to you regarding the specific preservative used and guidelines regarding proper handling and disposal. I have enclosed the following information for (specific treatment chemical):

- Consumer Information Sheet
- Hazard Warning Statement
- Material Safety Data Sheet

Please review the enclosed information and take all precautions when handling the used (specific chemical) treated poles. You may contact (appropriate resources) at (phone number) to obtain the poles. If you have any questions about the enclosed information, feel free to contact me at (phone number).

Sincerely,

Representative's Signature
District Representative's Name

Requestor's Signature
Requestor's Name

National Grid USA Companies Environmental Procedure No. 1 Waste Management and Recycling		Rev No.: 10
Chapter 10		Page No. 17 OF 30
WASTE MINIMIZATION AND RECYCLING		Date: 11/23/04

Table 10.1: Soil Analysis Criteria for Acceptance of Petroleum Contaminated Soils

Parameters	Sampling Frequency (cubic yards)	Limits for Acceptance		Soil Recycling Facility ¹
		Gas Contamin.	Oil Contamin.	
Flashpoint or Ignitability	500	Non-Ignitable > 140 F	Non-Ignitable > 140 F	All Facilities
Free Liquids	500	Visual Test Sufficient		AMREC
		NOT Accepted		All Facilities Except AMREC
PCB's	500	< 1 ppm ²	< 1 ppm	All Facilities Except ESMI
	N/A ³	< 50 ppm ⁴	< 50 ppm	ESMI
pH	500	Non-Corrosive (2 - 12.5)	Non-Corrosive (2 - 12.5)	All Facilities
Reactive Cn Reactive S	500	Non-Reactive	Non-Reactive	All Facilities Except AMREC
	500	Non-Reactive	Non-Reactive	
Reactive Cn Reactive S	500	250 ppm	250 ppm	AMREC
	500	500 ppm	500 ppm	
Total Petroleum Hydrocarbons (TPH)	100	60,000 ppm	60,000 ppm	AMREC
	100	N/A	50,000 ppm	Aggregate Industries (formerly Barton Trimount) (Stoughton & Shrewsbury)
	100	N/A	60,000 ppm	Aggregate Industries (Salem)
	100	50,000 ppm	50,000 ppm	Brox (Dracut & Marlboro) ⁵
	N/A	30,000 ppm	400,000 ppm ⁶	ESMI
	100	N/A	60,000 ppm	Ondrick Co.
Total Volatile Organics (VOC's)	500	500 ppm	500 ppm	AMREC
	100	500 ppm	N/A	Aggregate Industries (Stoughton & Shrewsbury) & Ondrick Co.
	500	N/A	500 ppm	
	100	30 ppm	N/A	Aggregate Industries (Salem)
	500	N/A	30 ppm	
	100	1800 ppm	1800 ppm	Brox (Dracut)
	100	65 ppm	65 ppm	Brox (Marlboro)
	N/A	Consult Facility	Consult Facility	ESMI

National Grid USA Companies Environmental Procedure No. 1 Waste Management and Recycling Chapter 10	Rev No.: 10
WASTE MINIMIZATION AND RECYCLING	Page No. 18 OF 30 Date: 11/23/04

Table 10.1: Soil Analysis Criteria for Acceptance of Petroleum Contaminated Soils				
Parameters	Sampling Frequency (cubic yards)	Limits for Acceptance		Soil Recycling Facility ¹
		Gas Contamin.	Oil Contamin.	
Total Chlorinated Solvents (HVOC's)	500	5 ppm	5 ppm	AMREC
	100	5 ppm	N/A	Aggregate Industries (Stoughton, Shrewsbury & Salem) & Ondrick Co.
	500	N/A	5 ppm	
	100	5 ppm	5 ppm	Brox (Dracut & Marlboro)
Total Organic Carbons (TOC)	500	Required if TOC content may exceed 10%.		All Facilities
Metals	Sampling Frequency ⁷ (cubic yards)	Limits for Acceptance		Facility
		Total ⁸	TCLP ⁹	
Arsenic	100	30 ppm	5 ppm	Brox
Cadmium	100	30 ppm	1 ppm	Brox
Chromium	100	500 ppm	5 ppm	Brox
Mercury	100	10 ppm	0.2 ppm	Brox
Lead	100	1000 ppm	5 ppm	Brox

- Notes:**
1. Soil Recycling Facilities are AMREC, Bardon Trimont, Brox and Ondrick.
 2. ppm = parts per million.
 3. N/A = Not Applicable.
 4. Total PCBs.
 5. GC/FID required if source unknown.
 6. All contaminants other than gasoline.
 7. Check ESMI required sampling protocol.
 8. ESMI requires total metals analysis for acceptance. If the total concentration of any constituent exceeds the listed limits, TCLP analysis is required..
 9. For ALL Facilities, TCLP Metals are required if total metals exceed 20 x rule.

National Grid USA Companies Environmental Procedure No. 1 Waste Management and Recycling Chapter 10		Rev No.: 10
WASTE MINIMIZATION AND RECYCLING		Page No. 19 OF 30
		Date: 11/23/04

Table 10.2: State-Specific Summary of Regulatory Status of Used Rags and Wipers

Requirement	Massachusetts	New Hampshire	Rhode Island	Vermont	New York
Items Covered	Shop towels, rags and disposable wipers.	Rags, shop towels and wipers.	Towels and sorbents.	Rags, shop towels and reusable absorbents.	Rags, shop towels and reusable absorbents.
No Free Liquids Allowed	"One drop" rule.	Paint filter test.	No free liquids.	"One drop" rule.	No free liquids.
Acceptable Contaminants	Oils and Solvents.	Oils and solvents.	Oils and trace amounts of hazardous wastes.	Oils and trace amounts of hazardous wastes.	Oil and trace amounts of hazardous wastes.
On-Site Management Requirements	Management requirements not specified in DEP policies. May be managed as solid waste.	<p>Material must be placed in containers with lidded drums or sealed laundry bags.</p> <p>Containers are to be kept closed, etc.</p> <p>Containers must be stored away from sources of ignition.</p> <p>Container must be labeled "Contaminated Wipers for Laundering."</p> <p>Containers must be managed and transported in accordance with DOT requirements.</p>	<p>Material must be stored in containers away from any source of heat.</p> <p>No other wastes may be mixed with sorbents.</p>	Must meet all of the VT OSHA requirements regarding the storage of ignitable/flammable materials between the time the solvent-contaminated rags are generated and the time they are picked up.	Management requirements not specified in DEC policies. May be managed as solid waste.
Reuse Options	Recycling by laundering rags or by energy recovery at an incinerator.	May be laundered at a commercial off-site laundry or laundered on-site.	May be laundered at a facility which meets the appropriate state and local criteria to handle such material.	Solvent-contaminated rags must be cleaned by a dry-cleaning service. Oil-contaminated rags may be laundered by a commercial service.	Recycling by laundering rags or by energy recovery at an incinerator.

Notes: 1. Any contaminated rags, etc., which would allow the release of free liquids determined to be hazardous wastes must be managed and disposed of as a hazardous waste.

2. Solvents should not be poured onto rags, etc.

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National Grid USA Companies Environmental Procedure No. 1 Waste Management and Recycling Chapter 10 WASTE MINIMIZATION AND RECYCLING	Rev No.: 10
	Page No. 20 OF 30
	Date: 11/23/04

3. All laundering facilities shall have the appropriate state and local permits, including facilities which will launder on-site. Contact the appropriate Environmental group for information concerning approved commercial laundry facilities.
4. It is National Grid USA POLICY that all facilities managing containers of oil/solvent contaminated rags, shall indicate the contents of the containers, shall keep the containers away from sources of ignition and shall manage and transport the containers in accordance with DOT requirements.

National Grid USA Companies Environmental Procedure No. 1 Waste Management and Recycling Chapter 10	Rev No.: 10
	Page No. 21 OF 30
WASTE MINIMIZATION AND RECYCLING	
	Date: 11/23/04

Table 10.3: Summary of Waste Oil Requirements in Massachusetts

Requirement	Description
Recycling Definition	Use, reuse or reclamation of a material
Specification Oil Parameters (Total concentrations)	Halogens 4,000 ppm ¹ Lead 100 ppm PCB 2 ppm Flashpoint 100 F Arsenic 5 ppm Cadmium 2 ppm Chromium 10 ppm
Spec Oil Permits/Notifications	Class A
Off-spec Oil Permits/Notifications ^{2,3}	Class B(3)
Generator Standards	<ul style="list-style-type: none"> Weekly inspections Training Ship only to facility with recycling permit, TSDF or other authorized facility Secondary containment Security Floor marking Satellite accumulation Container condition Container management Posting "Waste Oil" sign Special requirements for tanks (310 CMR 30.253)
Labeling	<ul style="list-style-type: none"> "Regulated Recyclable Material" or "Hazardous Waste" Name of waste (e.g., used oil fuel, waste oil) EPA Hazard (e.g., toxic, ignitable, if applicable) Accumulation start date
Shipping Papers	<ul style="list-style-type: none"> Manifest or log MA97 for spec oil MA98 for off-spec oil
Recordkeeping	<ul style="list-style-type: none"> Show 75% recycled per year
Reporting	<ul style="list-style-type: none"> Annual reports
Marketer Definition	A person who transfers used oil fuel to other persons who burn the fuel or a person who operates a facility where used oil fuel is blended to prepare specification used oil fuel
Marketer Standards	<ul style="list-style-type: none"> Notification Analysis of oil B(3) permit for off-spec used oil Records <ul style="list-style-type: none"> - notification - analysis - permit - burner certification - shipping documents - keep as specified in Table 3.4

National Grid USA Companies Environmental Procedure No. 1 Waste Management and Recycling Chapter 10	Rev No.: 10
WASTE MINIMIZATION AND RECYCLING	Page No. 22 OF 30 Date: 11/23/04

Requirement	Description
Burner Standards	<ul style="list-style-type: none"> • Notification • Analysis of oil • B(3) permit for off-spec used oil • Burn off-spec oil only in industrial or utility boilers, industrial furnaces, approved space heaters • Records <ul style="list-style-type: none"> - notification - analysis - permit - marketer certification - shipping documents - keep as specified in Table 3.4

- Notes:**
1. Used oil containing >1,000 ppm total halogens are presumed to be hazardous wastes unless the generator can prove otherwise.
 2. Off-specification used oils are those which do not meet the limitations listed for specification used oil, are not transformer oils, and have not been mixed with hazardous wastes.
 3. Generators of spec and off-spec oils are not required to obtain a recycling permit if the oil is being sent to a Marketer, not a burner, and has been authorized to receive that material in compliance with 310 CMR 30.200. National Grid USA Generators, if not burning waste oil on-site or at another Company location, shall have the oil transported by and to Murphy's utilizing the waste code MA98. Other vendors may be able to provide similar services on a case-by-case basis.

National Grid USA Companies Environmental Procedure No. 1 Waste Management and Recycling		Chapter 10	WASTE MINIMIZATION AND RECYCLING
Rev No.: 10	Page No. 23 OF 30		
Date: 11/23/04			

Table 10.4: Summary of Waste Oil Requirements in New Hampshire

Requirement		Description	
Recycling Definition		Use, reuse or reclamation of a material	
Specification Oil Parameters (Total concentrations) (807.02)		Halogens ≤1,000 ppm Lead ≤100 ppm PCB ≤2 ppm Flashpoint ≥100° F Arsenic ≤5 ppm Cadmium ≤2 ppm Chromium ≤10 ppm	
Spec Oil Permits/Notifications		None for generators	
Off-spec Oil Parameters (807.03)		Arsenic 18 ppm max Cadmium 10 ppm max Chromium 35 ppm max Lead 1,000 ppm max Flashpoint 100° F min PCBs 2 ppm, no upper limit specified	
Off-spec Oil Permits/Notifications		None for generators	
Generator Standards (807.06)		<ul style="list-style-type: none"> • Must be stored in DOT containers or structurally sound tank • Containers must be kept closed unless adding waste • Prevent releases • Analysis required if other than used automotive oil • May self-transport up to 110 gallons and must use Bill of Lading (BOL) 	
Labeling (807.06)		"Used Oil for Recycle"	
Shipping Papers (807.06)		3-copy BOL, or manifest form when required by the destination state. Special language required if using BOL [see 807.06(9)(f)]. If using manifest indicate in Line 1, "To be recycled."	
Recordkeeping (807.06)		<ul style="list-style-type: none"> • BOL/Manifest • Analysis • Keep as specified in Table 3.4 	
Reporting		None for generators	
Used Oil Marketer Definition (807.08)		Someone engaged in the act of marketing; e.g., the transfer of oil from one party to another. Does not include used oil generators or transporters who transport used oil received only from generators.	
Marketer Standards (807.09)		<ul style="list-style-type: none"> • Notification • Analysis of oil • Records • notification • analysis • burner certification • shipping documents 	

National Grid USA Companies Environmental Procedure No. 1 Waste Management and Recycling Chapter 10	Rev No.: 10
WASTE MINIMIZATION AND RECYCLING	Page No. 24 OF 30 Date: 11/23/04

	<ul style="list-style-type: none"> - operating logs - keep as specified in Table 3.4
Table 10.5: Summary of Waste Oil Requirements in New Hampshire	
Requirement	Description
Burner Standards (807.10)	<ul style="list-style-type: none"> • Notify Waste Management Division and Air Resources Division • Burn off-spec only in industrial furnaces, boilers >10 million Btu/hr at mfg. site, utility boilers, space heaters where the oil was generated on site • Burn spec oil only in oil furnaces and boilers, space heaters <0.5 million Btu/hr which are vented outdoors • Analysis unless only automotive oil or was tested by generator • Records <ul style="list-style-type: none"> - notifications - analysis - certifications - shipping documents - keep as specified in Table 3.4
Transporters (807.07)	For >110-gallons, use NH permitted hazardous waste transporter.

Note: 1. Used oil containing >1,000 ppm total halogens are presumed to be hazardous wastes unless the generator can prove otherwise.

National Grid USA Companies Environmental Procedure No. 1 Waste Management and Recycling Chapter 10	Rev No.: 10
	Page No. 25 OF 30
WASTE MINIMIZATION AND RECYCLING	
	Date: 11/23/04

Table 10.5: Summary of Waste Oil Requirements in Rhode Island				
Requirement	Description			
Recycling Definition	Use, reuse or reclamation of a material			
Alternative Fuel Parameters (20.4) (Total concentrations)	Halogens	≤0.1% (weight)	Sulfur	≤1.0% (weight)
	Lead	≤100 ppm (weight)	PCB	≤50 volume
	Cadmium	≤2 ppm volume	Flashpoint	≥100° F
	Chromium	≤10 ppm volume	Arsenic	≤5 ppm volume
	Heating Value	≥8,000 BTU		
Alternative Fuel Permits/Notifications	Written authority from RIDEM Air Division			
Generator Standards	Comply with all Chapter 3 requirements if oil is a hazardous waste, including used oil voluntarily managed as hazardous waste. If oil is not being managed as a hazardous waste, generator should still perform weekly inspections of containers, clearly label contents of containers, etc., but must not accumulate the containers in the hazardous waste accumulation area.			
Labeling	Per Chapter 3 if applicable. Otherwise label as "Waste oil for recycling" or comparable wording.			
Shipping Papers	<ul style="list-style-type: none"> • Bill of lading • Manifest • Automotive oil manifest 			
Recordkeeping	Per Chapter 3, if applicable.			
Reporting	None for generators.			
Marketer Definition	A person who used oil fuel to other persons who burn the fuel or a person who operates a facility where used oil fuel is blended to prepare specification used oil fuel.			
Marketer Standards	<ul style="list-style-type: none"> • Notification • Analysis of oil • Records <ul style="list-style-type: none"> - notification - analysis - burner certification - shipping documents - operating logs - keep as specified in Table 3.4 			
Burner Standards (20.4)	<ul style="list-style-type: none"> • Notify Waste Management Division and Air Division • Analysis (20.6) • Records (20.9) <ul style="list-style-type: none"> - notifications - analysis - shipping documents - keep as specified in Table 3.4 			
Transporters	Permitted transporter for hazardous waste or waste oil being voluntarily managed as hazardous.			

National Grid USA Companies Environmental Procedure No. 1 Waste Management and Recycling Chapter 10	Rev No.: 10
	Page No. 26 OF 30
WASTE MINIMIZATION AND RECYCLING	
Date: 11/23/04	

Table 10.6: Summary of Waste Oil Requirements in Vermont	
Requirement	Description
Recycling Definition	Use, reuse or reclamation of a material
Specification Oil Parameters (7-606) (Total concentrations)	Halogens $\leq 4,000$ ppm ¹ Arsenic ≤ 5 ppm
	Lead ≤ 100 ppm Cadmium ≤ 2 ppm
	PCB ≤ 2 ppm Chromium ≤ 10 ppm
	Flashpoint $\geq 100^{\circ}$ F
Spec Oil Permits/Notifications	None for generators
Off-spec Oil Permits/Notifications ²	None for generators
Generator Standards (7-608)	See Section 10.3.5 and Chapter 3 requirements.
Labeling	Per Chapter 3 unless the waste oil is exempt from hazardous waste management and then containers should be labeled as "Waste oil for recycling" or comparable wording.
Shipping Papers	<ul style="list-style-type: none"> • Bill of lading or manifest if shipped out-of-state • Invoice
Recordkeeping	Per Chapter 3
Reporting	None for generators
Marketer Definition	A person who transfers used oil fuel to other persons who burn the fuel or a person who operates a facility where used oil fuel is blended to prepare specification used oil fuel.
Marketer Standards (7-609)	<ul style="list-style-type: none"> • Notification • Analysis of oil • Records <ul style="list-style-type: none"> - notification - analysis - burner certification - shipping documents - keep as specified in Table 3.4 -
Burner Standards (7-610)	<ul style="list-style-type: none"> • Notify Waste Management Division • Analysis • Records <ul style="list-style-type: none"> - notifications - analysis - shipping documents - keep as specified in Table 3.4

Notes: 1. Used oil containing $>1,000$ ppm total halogens are presumed to be hazardous wastes unless the generator can prove otherwise.

2. Off-specification used oils are those which don't meet the limitations listed for specification used oil.

National Grid USA Companies Environmental Procedure No. 1 Waste Management and Recycling Chapter 10	Rev No.: 10 Page No. 27 OF 30
WASTE MINIMIZATION AND RECYCLING	Date: 11/23/04

Table 10.7: Summary of Waste Oil Requirements in New York	
Requirement	Description
Recycling Definition	Use, reuse or reclamation of a material
Specification Oil Parameters (360-14) (Total concentrations)	Halogens $\leq 4,000$ ppm ¹
	Lead ≤ 100 ppm
	PCB ≤ 2 ppm
	Flashpoint $\geq 100^{\circ}$ F
	Arsenic ≤ 5 ppm
	Cadmium ≤ 2 ppm
	Chromium ≤ 10 ppm
Spec Oil Permits/Notifications	Registration of used oil tanks
Off-spec Oil Permits/Notifications	Registration of used oil tanks
Generator Standards (7-608)	See Section 10.3.6 and Chapter 3 requirements.
Labeling	"Used Oil"
Shipping Papers	Bill of lading or manifest if required by receiving state
Recordkeeping	BOL, Tank Inspections per 613
Reporting	None for generators
Marketer Definition	A person who transfers used oil fuel to other persons who burn the fuel or a person who operates a facility where used oil fuel is blended to prepare specification used oil fuel.
Marketer Standards	<ul style="list-style-type: none"> • Notification • Analysis of oil • Records <ul style="list-style-type: none"> - notification - analysis - burner certification - shipping documents - keep as specified in Table 3.4
Burner Standards	<ul style="list-style-type: none"> • Notification • Analysis • Records <ul style="list-style-type: none"> - notifications - analysis - shipping documents - keep as specified in Table 3.4
Transporters	Permitted Part 364 Transporter

Notes: 1. Used oil containing $>1,000$ ppm total halogens are presumed to be hazardous wastes unless the generator can prove otherwise.

National Grid USA Companies Environmental Procedure No. 1 Waste Management and Recycling Chapter 10	Rev No.: 10
	Page No. 28 OF 30
WASTE MINIMIZATION AND RECYCLING	Date: 11/23/04

ATTACHMENT A

National Grid USA Companies
Waste Minimization Program

This policy describes the current National Grid USA Companies Waste Minimization Program for reducing the volume and toxicity of all wastes generated. Past efforts have focused on reducing the amount of hazardous waste generated. Current efforts include reduction of solid wastes through maximum reuse and recycling of materials, and changing work practices to reduce or eliminate the generation of hazardous waste (HW). Waste minimization efforts allow National Grid USA Companies to simultaneously improve environmental results and reduce costs.

The six elements of the National Grid USA Companies Waste Minimization Program (modeled using the US EPA interim final guidance published in 58 Federal Register 31114) are:

1. Top Management Support

Management support for waste minimization is demonstrated in both long-term planning documents and the National Grid USA Companies Environmental Policy and Principles. Specifically, Principle 4 states:

“We will work to prevent pollution at the source, minimize waste generation, recycle materials when economically feasible, and dispose of remaining wastes only through safe and environmentally sound methods.”

2. Characterization of Waste Generation and Waste Management Costs

In 1993, National Grid USA recognized a need to improve waste tracking data and standardize the way environmental costs were tracked within the company. Initially, Corporate Conservation, Inc. summarized National Grid USA Companies 1993 waste generation data, and associated management costs as part of the Green Accounting project. Improved waste tracking was identified as a need, and National Grid USA Companies responded by modifying contracts such that solid waste and HW disposal vendors provide waste generation data. This information is tracked internally to monitor ongoing performance.

3. Periodic Waste Minimization Assessments

Annual cost and waste disposal summaries are used to assess waste minimization opportunities and evaluate progress. Projects implemented as a result of these assessments include:

- Replacement of chlorinated solvent-based cleaners with non-chlorinated cleaners;
- Recycling of used oil filters (both automotive and process equipment);
- Burning waste automotive oil for energy recovery, and recycling used oily rags;
- Recycling spent rechargeable batteries (instead of disposal as hazardous waste);
- Recycling of lighting wastes (both relamping projects and routine maintenance);
- Centralizing corrugated board recycling (making maximum use of the Worcester baler;

National Grid USA Companies Environmental Procedure No. 1 Waste Management and Recycling Chapter 10	Rev No.: 10
	Page No. 29 OF 30
WASTE MINIMIZATION AND RECYCLING	Date: 11/23/04

- Increasing the amount of oily soil recycled via asphalt batching;
- Applying in-situ remediation technologies for contaminated sites (where appropriate);
- Developing a plan to eliminate the use of lead cable in new underground installations.

4. **Appropriate Cost Allocation**

Departments which generate waste are responsible for associated environmental management costs including:

- environmental and emergency response training costs
- contingency plan costs
- recycling program costs
- solid and hazardous waste disposal costs
- site assessment costs, and spill response activities

A National Grid USA environmental activity and project code-based cost accounting system is in place to simplify ongoing environmental cost tracking.

5. **Technology Transfer is Encouraged**

National Grid USA Companies are actively involved with the Electric Power Research Institute (EPRI), State recycling organizations, and State regulatory waste site cleanup committees.

Monthly staff meetings of the National Grid USA environmental personnel provide an opportunity to share information, and obtain feedback regarding current waste reduction and recycling efforts.

6. **Program Implementation and Evaluation**

The National Grid USA Environmental Department will lead efforts to eliminate, reduce, reuse, or recycle wastes. Projects and new programs are rolled out to other National Grid USA facilities as appropriate, and best management practices are shared within the environmental group.

We evaluate progress each December, and set environmental and safety goals which support the National Grid USA business strategy. Key accomplishments are periodically shared with National Grid USA COMPANIES employees via National Grid USA Paper articles and memos.

SUMMARY

The National Grid USA Companies waste minimization program is successful by applying the following three waste minimization principles:

- **Reduce**
 - Changing maintenance practices to reduce the use of hazardous materials;

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National Grid USA Companies Environmental Procedure No. 1 Waste Management and Recycling Chapter 10	Rev No.: 10
	Page No. 30 OF 30
WASTE MINIMIZATION AND RECYCLING	Date: 11/23/04

- Changing operating practices to eliminate/reduce hazardous waste generation;
- Working with vendors to reduce packaging and use recycled packaging when possible;
- Developing partnerships with vendors to reduce National Grid USA inventory, and thus reduce waste.

- **Reuse**

- Striving to maximize reuse of National Grid USA supplies issued and not used for the original job;
- Donating used utility poles for reuse by communities and individuals;
- Repairing and reusing transformers, relays, and other equipment (when possible);
- Selling unused/surplus electrical equipment to other utilities for reuse.

- **Recycle**

- Recycling oily soil via asphalt batching processes;
- Recycling used treated wood by-products (poles, pallets, boxes) as fuel for utility boilers;
- Recycling tree-trimming wastes by chipping for use as wood boiler fuel or as mulch;
- Recycling used oil filters, used oily rags/wipers, and used automotive oil;
- Recycling corrugated cardboard.